



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

KC

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/382,443	08/25/1999	YOUNG-KY KIM	678-343-(P88	5237
28249	7590	09/21/2004	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553				CUMMING, WILLIAM D
ART UNIT		PAPER NUMBER		
2683				

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/382,443	KIM, ET AL
	Examiner	Art Unit
	WILLIAM D CUMMING	2683

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 15 June 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,2 and 11-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,11,12,14,16-18 and 20-22 is/are rejected.
- 7) Claim(s) 2,13,15 and 19 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 16 June 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 11, 12, 14, 16-18, 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sawashashi, et al** in view of **Bruckert and Van Kerckhove** as stated in paragraph 8 of the Office action dated February 12, 2004.

Applicants' representative stated, response of June 16, 2004, that such support of a reference value initially equal to a required signal to noise ratio to be found on page 8 which the specification states as prior art.

Information Disclosure Statement

5. The information disclosure statement filed June 15, 2004 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. The examiner took the English abstract as a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It is applicants and applicants' attorney responsibility if the English abstract is not a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language, to inform the examiner as such and provide a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR

1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language.

Response to Amendment

6. Elimination of Post Office Box in Arlington, Virginia for Patent Related Correspondence

Effective immediately, the Office will cease accepting patent-related correspondence addressed to the P.O. Box 2327 Arlington, VA 22202. Effective May 1, 2003, pursuant to 37 CFR 1.1, patent-related correspondence should have been addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. Accordingly, as of May 1, 2003, the provisions of 37 CFR 1.8 (Certificate of Mailing) and 1.10 (Express Mail certificate) that were waived by the Office were no longer waived for correspondence addressed to P.O. Box 2327, Arlington, VA 22202.

In November of 2001, the Office established a Post Office Box in Arlington, Virginia (P.O. Box 2327, Arlington, VA 22202) for use on an emergency basis, and indicated that the Office would continue to accept patent-related correspondence at this Arlington, Virginia Post Office Box and treat such correspondence as if it were addressed as set forth in 37 CFR 1.1 for purposes of 37 CFR 1.8 and 1.10 until further notice. On March 25, 2003, the Office provided notice that persons submitting correspondence to the Office should no longer use the Arlington, Virginia Post Office Box for any correspondence (including sequence listings in electronic format) after May 1, 2003. See Correspondence with the United States Patent and Trademark Office, 68 Fed. Reg. 14332 (March 25, 2003).

Correspondence in patent-related matters to organizations reporting to the Commissioner for Patents must be addressed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Appropriate mail stops should also be used. See the notice titled "Special Mail Stops For Patent Mail" that is published each week in the Official Gazette Notices and posted on the USPTO Internet

web site.

Questions regarding this notice may be e-mailed to PatentPractice@uspto.gov, or directed to the Inventors' Assistance Center (formerly the Patent Assistance Center (PAC)) by telephone at 800-786-9199 or 703-308-4357. OG Notices: 29 June 2004

7. New Address for Customer Window Which is Used for Patent Mail Not Delivered by the USPS

Effective June 5, 2004, street addresses for several of the buildings of the United States Patent and Trademark Office (USPTO), including the Crystal Plaza Two building which is the location of the Customer Window, have been changed. The Customer Window is the delivery location for patent-related correspondence to be hand or courier delivered to the USPTO by delivery services such as FedEx, UPS, DHL, Laser, Action, Purolator, etc. The customer window is not used for correspondence delivered by the United States Postal Service (USPS). This change is made because the street on which the Crystal Plaza Two building is located will be redesignated from South Clark Place to 20th Street S.

Patent-related correspondence sent through the USPS should continue to be directed to the addresses set forth in 37 CFR 1.1 (revised effective January 21, 2004) (e.g., P.O. Box 1450, Alexandria, VA 22313-1450). The change in the street address for the Crystal Plaza Two building which houses the Customer Window does not affect the Mail Stop designations, which should always be used for certain patent mail.

Although the physical location of the Customer Window (the building and room number) will remain the same, on June 5, 2004 the street address of the Crystal Plaza Two building will change from 2011 South Clark Place to 220 20th Street S. Accordingly, effective June 5, 2004, patent mail delivered by hand or delivery services to the Customer Window (and not the USPS) must be addressed as follows:

U.S. Patent and Trademark Office
220 20th Street S.
Customer Window, Mail Stop _____
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

During business hours, correspondence for international patent applications may be brought directly to the PCT Operations Receptionist on the 8th floor of the Crystal Plaza 2 building.

Also effective June 5, 2004, will be changes in the street addresses of three other USPTO buildings in the Crystal City complex. The street address changes are as follows: the Crystal Plaza Three building will be 2100 Crystal Drive; the Crystal Plaza Four building will be 2200 Crystal Drive; and the Crystal Square Two building will be 1550 Crystal Drive. These changes should be noted in case interviews with examiners in those buildings will be held after June 5, 2004.

Please be aware that the new address for the Customer Window is only temporary. In August or September of 2004, the Customer Window will be moving to the Alexandria campus. At that time, the address for patent mail delivered by hand or delivery services to the Customer Window (and not the USPS) will be changed yet again to a new Customer Window located on the Alexandria campus. A separate notice will be published in advance of the Customer Window relocation announcing specific details. The Customer Window location change planned for August or September will also have no affect on the USPTO address for mail delivered by the USPS.

The File Information Unit (also known as the Record Room) is scheduled to move to South Tower in July of 2004.

PCT Operations will be moving to South Tower in November or December of 2004. A separate notice will be published in advance of the PCT Operations relocation announcing specific details.

Questions regarding this notice may be e-mailed to PatentPractice@uspto.gov, or directed to the Inventors' Assistance Center (formerly the Patent Assistance Center (PAC)) by telephone at (800)786-9199, or (703)308-4357. OG Notices: 01 June 2004

8. Patent Application Publications May Now Include Amendments

As a consequence of the use of Image File Wrappers (IFW), the United States Patent and Trademark Office (Office) has begun to publish patent applications with amendments that expedite the publication process. For example, the patent application publication may be based upon amendments to the specification that are reflected in a substitute specification, an amendment to the abstract, amendments to the claims that are reflected in a complete claim listing, and amendments to the drawings that are reflected in replacement drawing sheets, provided that such substitute specification or amendment is submitted in sufficient time to be entered into the application file wrapper before technical preparations for publication of the application have begun.

Technical preparations for publication of an application generally begin between fourteen and nine weeks prior to the projected date of publication (the projected publication date is indicated on the filing receipt for the patent application). Accordingly, the provisions 37 CFR 1.215(a) are waived to the extent that they are inconsistent with this change in practice. 37 CFR 1.215(a) will be revised consistent with this change in practice, when the rule changes proposed in Changes To Support Implementation of the United States Patent and Trademark Office 21st Century Strategic Plan, 68 Fed. Reg. 53816 (Sept. 12, 2003), 1275 Off. Gaz. Pat. Office Notices 23 (Oct 7, 2003) are made final.

Although the Office has begun to include amendments in patent application publications, applicants desiring to ensure that a patent application publication reflects an amendment should submit the application, as amended, through the Electronic Filing System (EFS). See 37 CFR 1.215(c). See also Helpful Hints Regarding Publication of Patent Applications, 1249 Off. Gaz. Pat. Office Notices 83 (August 21, 2001). In addition, if the application is not maintained in an IFW, and the amended application is not submitted through EFS, a petition under 37 CFR 1.182 will continue to be necessary for certain drawings to be included in the patent application publication. See Manual of Patent Examining Procedure, Section 507 (8th ed. 2001, rev. 1, Feb. 2003).

General questions regarding publication of patent applications should be directed to the Customer Service Center, Office of Patent Publication, by telephone at (703) 305-8283. Questions regarding the Electronic Filing System should be directed to (703) 305-3028. Questions of a legal nature should be directed to the Office of Patent Legal Administration at (703) 308-6906. OG Notices: 13 April 2004

9. Oversized Postcards Must Be Submitted With Sufficient Postage

Recently, a number of return receipt postcards have been returned to the U.S. Patent and Trademark Office (Office) because the postcards contained insufficient postage for an oversized postcard. Oversized postcards require First-Class letter postage. Customers are reminded that they are solely responsible for placing the proper postage on self-addressed postcards that are submitted to the Office for the purpose of obtaining a receipt for correspondence being filed in the Office.

Customers should be aware of the following guidance from the

USPS regarding postage and acceptability for postcards:

1. In order to be eligible for the First-Class Mail card rates (currently \$0.23 per card, domestic delivery), cards must be of uniform thickness and made of unfolded and uncreased paper or card stock of approximately the quality and weight of a Postal Service stamped card. Cards claimed at the First-Class postcard rate must be:

- (a) Rectangular;
- (b) No less than 3-1/2 inches high, 5 inches long, and 0.007 inch thick; and
- (c) No more than 4-1/4 inches high, 6 inches long, and 0.016 inch thick.

2. Cards that measure more than 4-1/4 inches high, 6 inches long, or 0.016 inch thick are charged postage at the First-Class Mail letter rates.

3. Cards that measure less than 3-1/2 inches high, 5 inches long, and 0.007 inch thick are nonmailable.

Any return receipt postcard that does not contain sufficient postage or is not acceptable may not be delivered by the United States Postal Service (USPS) to the address provided on the postcard, and, if returned to the Office, may be discarded.

For information regarding the Office's postcard receipt practice in patent-related matters, see Manual of Patent Examining Procedure (MPEP) (8th Ed., Rev. 1, Feb. 2003), Section 503. Questions regarding sufficient postage for postcards should be directed to the United States Postal Service. Questions regarding this notice may be e-mailed to PatentPractice@uspto.gov, or directed to the Inventors' Assistance Center by telephone at (800)786-9199, or (703)308-4357. OG Notices: 29 June 2004

10. SPECIAL MAIL STOPS FOR PATENT MAIL

Revisions have been made to the list of mail stops. The mail stops that should no longer be used are: Mail Stop Application Number, Mail Stop CPA, Mail Stop Design, Mail Stop Non-Fee Amendment, Mail Stop PGPUB-ABD, Mail Stop Patent Application, and Mail Stop Provisional Patent Application. Mail Stop Non-Fee Amendment has been changed to Mail Stop Amendment. In addition, Mail Stop PGPUB-ABD has been changed to Mail Stop Express Abandonment and all requests and petitions for an express abandonment under 37 CFR 1.138 should be directed to Mail Stop Express Abandonment or transmitted by facsimile to 703-305-8568. Lastly, Mail Stop L&R and Mail Stop Post Issue have been established.

For most correspondence (e.g., new patent applications) no mail stop is required because the processing of the correspondence is routine. If NO mail stop is included on the list below, then NO mail stop is required for the correspondence. Special mail stop designations should only be used for particular types of mail that may be forwarded to the appropriate area without being opened, or that may be processed with the remaining mail. Only the specified type of document should be placed in an envelope addressed to one of these special mail stops. If any documents other than the specified type identified for each special mail stop are addressed to that mail stop, they will be significantly delayed in reaching the appropriate area for which they are intended. The mail stop should generally appear as the first line in the address.

Petitions for a foreign filing license may be faxed to: 703-305-7658.

Some correspondence may be submitted electronically. See the Office's Internet Web site <http://www.uspto.gov> for additional information.

Please address mail to be delivered by the United States Postal Service (USPS) as follows:

**Mail Stop _____
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

Except correspondence for Maintenance Fee payments, Deposit Account Replenishments (see 1.25(c)(4)), and Licensing and Review (see 37 CFR 5.1(c) and 5.2(c)), please address mail to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, etc.) as follows:

**U.S. Patent and Trademark Office
220 20th Street South
Customer Window, Mail Stop _____
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202**

Note: The Customer Window will be moving to the new Alexandria location in August or September of 2004.

Mail Stop Designations	Explanation
Mail Stop 12	Contributions to the Examiner Education Program.
Mail Stop 313(c)	Petitions under 37 CFR 1.313(c) to withdraw a patent application from issue after payment of the issue fee and any papers associated with the petition, including papers necessary for a continuing application or a request for continued examination (RCE).
Mail Stop AF	Amendments and other responses after final rejection, other than an appeal brief.
Mail Stop Amendment	Information disclosure statements, drawings, and replies to Office actions in patent applications with or without an amendment to the application or a terminal disclaimer. (Use Mail Stop AF for replies after final rejection.).
Mail Stop Appeal Brief-Patents	For appeal briefs under 37 CFR 1.192 or reply briefs under 37 CFR 1.193(a).
Mail Stop Comments-Patents	Public comments regarding patent related regulations and procedures.
Mail Stop Conversion	Requests under 37 CFR 1.53(c)(2) to convert a nonprovisional application to a provisional application and requests under 37 CFR 1.53(c)(3) to convert a provisional application to a nonprovisional application.
Mail Stop DD	Disclosure Documents or materials related to the Disclosure Document Program. (A disclosure document is NOT an information disclosure statement.) Instead of filing a disclosure document, inventors are encouraged to file a provisional patent application.
Mail Stop EBC	Mail for the Electronic Business Center including: Certificate Action Forms, Request for Customer Numbers, and Requests for Customer Number Data Change (USPTO Forms PTO-2042, PTO/SB/124A and 125A, respectively) and Customer Number Upload Spreadsheets and Cover Letters.

Mail Stop Expedited Design	Only to be used for the initial filing of design applications accompanied by a request for expedited examination under 37 CFR 1.155. (Design applicants seeking expedited examination may alternatively file a design application and corresponding request under 37 CFR 1.155 by hand-delivering the application papers and request directly to the Design Group Director's office.)
Mail Stop Express Abandonment	Requests for abandonment of a patent application pursuant to 37 CFR 1.138, including any petitions under 37 CFR 1.138(c) to expressly abandon an application to avoid publication of the application. (This new mail stop should be used instead of Mail Stop PGPUB- ABD. Applicants are encouraged to transmit the requests by facsimile to (703) 305-8568.))
Mail Stop ILS	Correspondence relating to international patent classification, exchanges and standards.
Mail Stop Issue Fee	All communications following the receipt of a PTOL-85, "Notice of Allowance and Fee(s) Due," and prior to the issuance of a patent should be addressed to Mail Stop Issue Fee, unless advised to the contrary. Assignments are the exception. Assignments (with cover sheets) should be faxed to 703-306-5995, electronically submitted, or submitted in a separate envelope and be sent to Mail Stop Assignment Recordation Services, Director - U.S. Patent and Trademark Office as shown below.
Mail Stop L&R	All documents pertaining to applications subject secrecy order pursuant to 35 U.S.C. 181, or are national-security classified and required to be processed accordingly. Such papers may also be hand carried to: Technology Center 3600, Office of the Director 2451 Crystal Drive, Room 3D07 Arlington, VA 22202
Mail Stop Missing Parts	Requests for a corrected filing receipt and replies to OIPE notices such as the Notice of Omitted Items, Notice to File Corrected Application Papers, Notice of Incomplete Application, Notice to Comply with Nucleotide Sequence Requirements and Notice to

	File Missing Parts of Application, and associated papers and fees.
Mail Stop MPEP	Submissions concerning the Manual of Patent Examining Procedure.
Mail Stop Patent Ext.	Applications for patent term extension and any communications relating thereto.
Mail Stop PCT	Mail related to applications filed under the Patent Cooperation Treaty.
Mail Stop Petition	Petitions to be decided by the Office of Petitions including petitions to revive and petitions to accept late payment of issue fees or maintenance fees.
Mail Stop PGPUB	Correspondence regarding publication of patent applications not otherwise provided, including requests for early publication made after filing, rescission of non-publication request, corrected patent application publication, refund of publication fee.
Mail Stop Post Issue	In patented files: requests for changes of correspondence address, powers of attorney, revocations of powers of attorney, withdrawal of attorney and submissions under 37 CFR 1.501. Designation of, or changes to, a fee address should be addressed to Mail Stop M Correspondence. Requests for Certificate of Correction need no special mail stop, but should be made to the attention of Certificate of Correction Branch.
Mail Stop RCE	Requests for continued examination under 37 CFR 1.114.
Mail Stop Reconstruction	Correspondence pertaining to the reconstruction of lost patent files.
Mail Stop <i>Ex Parte</i> Reexam	Requests for Reexamination for original request papers only .
Mail Stop <i>Inter Partes</i> Reexam	Requests for <i>Inter Partes</i> Reexamination for <i>original</i> request papers and for all <i>subsequent</i> correspondence other than correspondence to the Office of the Solicitor (see 37 CFR §§ 1.1(a)(3) and 1.302(c)).
Mail Stop Reissue	All new and continuing reissue application filings.

Mail Stop Sequence Submission of the computer readable form (CRF) for applications with sequence listings, when the CRF is not being filed with the patent application.

ADDRESS FOR TRADEMARK MAIL

The box designations previously listed in Trademark Manual of Examining Procedure, Section 305.01 are no longer in use. See Change of Address for Mailing Trademark Correspondence, which is posted on the USPTO Internet web site at:

<http://www.uspto.gov/web/trademarks/tmmailingaddressnotice.htm>. Please address mail to be delivered by the United States Postal Service (USPS) as follows:

Commissioner for Trademarks
2900 Crystal Drive
Arlington, Virginia 22202-3514

11. SPECIAL MAIL STOPS APPLICABLE TO BOTH PATENT AND TRADEMARK MAIL

The following special mail stop designations are applicable to both patent and trademark related mail, and the recommendations for "Special Mail Stops for Patent Mail" (above) should be followed for the types of mail listed below.

Please address mail to be directed to a mail stop identified below to be delivered by the United States Postal Service (USPS) as follows (unless otherwise instructed):

Mail Stop _____
Director of the US Patent and Trademark Office
PO Box 1450
Alexandria, VA 22313-1450

Mail Stop Designations	Explanation
Mail Stop 3	Mail for the Office of Personnel from NFC
Mail Stop 6	Mail for the Office of Procurement.
Mail Stop 8	All papers for the Office of the Solicitor except communications relating to pending litigation and disciplinary proceedings; papers relating to pending litigation in court cases shall be mailed only to Office of the Solicitor, PO Box 15667, Arlington, VA 22215 and papers related to pending disciplinary proceedings before the Administrative Law Judge or the Director shall be mailed only to the Office of the Solicitor, PO Box 16116, Arlington, VA 22215.
Mail Stop 11	Mail for the Electronic Ordering Service (EOS).
Mail Stop 13	Mail for the Employee and Labor Relations Division.

Mail Stop 16	Mail related to refund requests, other than requests for refund of a patent application publication fee. Such requests should be directed to Mail Stop PGPub.
Mail Stop 17	Invoices directed to the Office of Finance.
Mail Stop 24	Mail for the Inventor's Assistance Program, including complaints about Invention Promoters.
Mail Stop 171	Vacancy Announcement Applications.
Mail Stop Assignment Recordation Services	All assignment documents, security interests, and other documents to be recorded in the Assignment records. Note that documents with cover sheets faxed to 703-306-5995 are processed much more quickly than those submitted by mail.
Mail Stop Congressional Relations	Mail for the Office of Congressional Relations.
Mail Stop Document Services	All requests for certified or uncertified copies of patent or trademark documents.
Mail Stop EEO	Mail for the Office of Civil Rights.
Mail Stop Enforcement	Mail for the Office of Enforcement.
Mail Stop Interference	Communications relating to interferences and applications and patents involved in interference.
Mail Stop International Relations	Mail for the Office of International Relations.
Mail Stop M Correspondence	Mail to designate or change a fee address, or other correspondence related to maintenance fees, except payments of maintenance fees in patents. See below for the address for maintenance fee payments.
Mail Stop OED	Mail for the Office of Enrollment and Discipline.

Maintenance Fee Payments

Payments* of maintenance fees in patents not submitted electronically over the Internet at www.uspto.gov should be mailed to:

United States Patent and Trademark Office
PO Box 371611
Pittsburgh, PA 15250-1611

Deposit Account Replenishments

To send payment* to replenish deposit accounts, send the payments to:

Director of the United States Patent and Trademark Office
PO Box 70541
Chicago, IL 60673

* Payment of maintenance fees in patents (Attn: Maintenance Fee) and deposit account replenishment (Attn: Deposit Accounts) using hand-delivery and delivery by private courier may be made to:

Director of the United States Patent and Trademark Office

Attn: _____

One Crystal Park
2011 Crystal Drive, Suite 307
Arlington, Virginia 22202.

Questions regarding the information provided on this page should be directed to: Darnell Jayne, Legal Advisor in the Office of Patent Legal Administration, by telephone at (703) 308-6906 or by e-mail addressed to PatentPractice@uspto.gov.

Response to Arguments

12. Applicants' arguments filed June 15, 2004 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., reference value being a certain equation or fractions thereof) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). If the reference value being a certain equation or fractions thereof, then why applicants did not place that in the claim?

The specification is not the measure of the invention. Therefore, limitations contained therein can not be read into the claims for the purpose of

avoiding the prior art (In re Sporck, 155 USPQ 687). Attempt to invoke limitations present in the preferred embodiment but absent from the claims themselves violates the established claim construction principles

Applicants' representative arguments of the response of October 7, 2003, are the same arguments as stated in his June 17, 2003 and the examiner fully respond these arguments in the Final Office Action dated July 9, 2003.

This application is NOT in condition for allowance.

Allowable Subject Matter

13. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

14. Claims 2, 13, 15, and 19, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. All Electronic Copies of Patent Application Records Will Now Be Provided as Certified Copies in Electronic Form

The United States Patent and Trademark Office (USPTO) is changing to an electronic format for the electronic certified copies it supplies of 1) U.S. patent

applications as filed, and 2) U.S. patent-related file wrappers and contents. Copies of U.S. patent application documents made from the USPTO's Image File Wrapper (IFW) electronic system will be provided entirely in electronic form and will always be provided as certified copies. In addition, certified copies of patent application documents will no longer be bound, regardless of whether produced from IFW or a paper file.

For the last two years certified copies of large patent application files produced from the USPTO's electronic systems have been provided only on compact disc, with an attached paper certification statement. Currently, certified copies of patent applications as filed of 400 or more pages and all certified File Wrapper copies produced from IFW are provided on compact disc (CD), both with attached paper certification statements. The \$200 fee for a file wrapper and contents was effectively waived and replaced by a \$55 fee when the application contents are provided on CD. See Copies of File Contents Available on Compact Disc Partial Waiver of 37 CFR 1.19(b), 1278 Off. Gaz. Patent Office 261 (Jan. 27, 2004). The fee for an application as filed remains \$20, as set forth in 37 CFR 1.19(b)(1), even when the copy is provided on compact disc.

Effective July 30, 2004, all copies of patent documents purchased under 37 CFR 1.19 and produced from IFW will be provided only as electronic files, with an imaged certification statement included as part of a digitally signed PDF (portable document format) file containing TIFF (tag image file format) images of the document pages. These electronic files may be downloaded from the USPTO website or provided by the USPTO on compact disc. The electronic files are digitally signed by the USPTO for authenticity and integrity, and cannot be undetectably modified. As mentioned above, all copies purchased pursuant to 37 CFR 1.19 and produced from IFW will be produced only as certified copies. Uncertified copies may be downloaded under the USPTO's Public PAIR system.

Before submitting electronic certified copies of the application as filed supplied on CD or in another electronic form to intellectual property offices under Article 4 of the Paris Convention for the Protection of Industrial Property applicants should inquire whether that office accepts priority documents in electronic form. Although the USPTO provides a certified copy in electronic form, applicants may print the certified copies to paper if required by the intellectual property office to which it is submitted.

The USPTO is actively engaging in discussions with other intellectual property offices for the mutual acceptance of electronic priority documents. Should another intellectual property office not accept a paper or electronic certified copy of a patent application as filed as described in the above paragraph, upon presentation of a notice of non-acceptance by the other office, the USPTO will provide a substitute paper copy with a letter signed by an official of the USPTO addressed to the foreign office indicating that the certified copy of the application as filed is to be accepted under Article 4 of the Paris

Convention for the Protection of Industrial Property. Since the USPTO will no longer bind or rivet paper certified copies of patent applications as filed or file wrappers and contents, copies produced by the Office will be identical to copies printed by an applicant from the electronic certified

16. If applicants wish to request for an interview, an "*Applicant Initiated Interview Request*" form (PTOL-413A) should be submitted to the examiner prior to the interview in order to permit the examiner to prepare in advance for the interview and to focus on the issues to be discussed. This form should identify the participants of the interview, the proposed date of the interview, whether the interview will be personal, telephonic, or video conference, and should include a brief description of the issues to be discussed. A copy of the completed "*Applicant Initiated Interview Request*" form should be attached to the Interview Summary form, PTOL-413 at the completion of the interview and a copy should be given to applicant or applicant's representative.

17. If applicants request an interview after this final rejection, prior to the interview, the intended purpose and content of the interview should be presented briefly, in writing. Such an interview may be granted if the examiner is convinced that disposal or clarification for appeal may be accomplished with only nominal further consideration. Interviews merely to restate arguments of record or to discuss new limitations which would require more than nominal reconsideration or new search will be denied.

18. **THIS ACTION IS MADE FINAL.** Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

19. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM D CUMMING whose telephone number is 703-305-4394. The examiner can normally be reached on Monday, Wednesday, Thursday, 10:30am to 8:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wdc



UNITED STATES
PATENT AND
TRADEMARK OFFICE

William Cumming
Primary Patent Examiner
(703) 305-4394
(703) 746-6075 Fax
william.cumming@uspto.gov

A handwritten signature of "William Cumming" is written over a printed name and title. The printed text reads: "WILLIAM CUMMING", "PRIMARY EXAMINER", and "GROUP 2600".

WILLIAM CUMMING
PRIMARY EXAMINER
GROUP 2600